

# Department of **Environmental Quality**

Dianne R. Nielson, Ph.D. Executive Director

DIVISION OF AIR QUALITY Richard W. Sprott Director

OLENE S. WALKER Governor

GAYLE F. McKEACHNIE Lieutenant Governor

DAQE-AN2776002-04

May 24, 2004

Tony Christofferson Geneva Rock Products 1565 West 400 North P. O. Box 538 Orem, Utah 84059

Dear Mr. Christofferson:

Re: Approval Order: Reduce Generator and Equipment Hours of Operation

Salt Lake County, CDS B; NA; Maint; HAPs; Title V Minor

Project Code: N2776-002

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Richard W. Sprott, Executive Secretary Utah Air Quality Board

RWS:NM:re

Salt Lake Valley Health Department cc: Mike Owens, EPA Region VIII



# STATE OF UTAH

# **Department of Environmental Quality**

# **Division of Air Quality**

# APPROVAL ORDER: REDUCE GENERATOR AND EQUIPMENT HOURS OF OPERATION

Prepared By: Nando Meli, Engineer

(801) 536-4052 Email: <u>nmeli@utah.gov</u>

# APPROVAL ORDER NUMBER

DAQE-AN2776002-04

Date: May 24, 2004

Geneva Rock Products
Source Contact
Tony Christofferson
(801) 802-6913

Richard W. Sprott Executive Secretary Utah Air Quality Board

#### Abstract

Geneva Rock Products (GRP) operates a Sand and Gravel (S&G) Pit west of I-15, at the Point of the Mountain, in Salt Lake County. GRP requests the current Approval Order (AO), DAQE-AN2776001-03, dated February 13, 2003, be modified to improve S&G flexibility by simplifying equipment list, modifying the fugitive dust control plan, reduce electrical generation limits from 975,000 HP-hr/yr to 92,500 HP-hr/yr and reduce off-highway truck use from 3,000 hrs/yr to 2,000 hrs/yr. The sand and gravel operations west of 1-15 are known as the Mount Jordan Operation, and are located in Salt Lake County. Salt Lake County is a Non-attainment area of the National Ambient Air Quality Standards (NAAQS) for PM<sub>10</sub> and SO<sub>2</sub>, and is a maintenance area for ozone. New Source Performance Standards apply to this source. Title V of the 1990 Clean Air Act applies to this source. The calculated Potential to Emit emissions will change in tons per year as follows: PM<sub>10</sub>: -19.41, NO<sub>x</sub>: -12.16, SO<sub>2</sub>: -1.97, CO: -3.75, VOC: -0.14, HAPs: -0.12. The changes in emissions will result in the following potential to emit totals: PM<sub>10</sub> = 26.98, NO<sub>x</sub> = 15.53, SO<sub>2</sub> 1.62, CO = 4.51, VOC = 1.77, HAPs = 0.26.

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

# **General Conditions:**

1. This Approval Order (AO) applies to the following company:

Corporate Office Location
Geneva Rock Products, Inc.
1565 West 400 North
P. O. Box 538
Orem, Utah 84059

Phone Number: (801) 281-7800 Fax Number: (801) 281-7830

The equipment listed in this AO shall be operated at the following location:

The Mount Jordan Point of the Mountain pit is located in Draper on the west side of Interstate 15 (I-15) near the I-15 exit 291.

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27 4,479.7 km Northing, 422.5 km Easting, Zone 12

- 2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
- 3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

- 4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.
- 5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:
  - A. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
  - B. All other records Two years
- 6. Geneva Rock Products, Inc. (Geneva Rock) shall conduct its operations of the Mount Jordan pit in accordance with the terms and conditions of this AO, which was written pursuant to Geneva Rock's Notice of Intent submitted to the Division of Air Quality (DAQ) on July 17, 2003.
- 7. This AO shall replace the AO (DAQE-AN2776001-03) dated February 13, 2003.
- 8. The approved installations shall consist of the following equipment or equivalent\*:
  - A. Fuel Oil and Diesel Storage Tanks
  - B. Generators, Etc.
    - 1) Diesel/Gasoline/LPG Fueled Electrical Generators
    - 2) Portable Generators, Lighting Plants, Pumps, and Compressors
  - C. Miscellaneous Aggregate Processing Equipment
    - 1) Grizzlies, Feeders, Splitters, Traps, and Load Bins
    - 2) Jaw Crushers, Cone Crushers, and VSI Crushers
    - 3) Dry Screens, Wet Screens, and Wash Plants
    - 4) Conveyors, Screws, Cyclones, Clarifiers, and Stackers
  - D. <u>Miscellaneous\*\*</u>
    - Welders, Pumps, Motors, Pressure Washers, Parts Washers, and other equipment associated with construction materials processing, manufacture, and maintenance.

A detailed list of the above equipment is attached as Appendix A.

<sup>\*</sup> Equivalency shall be determined by the Executive Secretary.

<sup>\*\*</sup> This equipment is listed for informational purposes only.

### **Limitations and Tests Procedures**

- 9. Visible emissions from the following emission points shall not exceed the following values:
  - A. All crushers 10% opacity
  - B. All screens 10% opacity
  - C. All conveyor transfer points 10% opacity
  - D. All diesel engines 20% opacity
  - E. Conveyor drop points 20% opacity
  - F. All baghouses 10%
  - G. All other points including fugitive dust sources 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made at ½ the vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

10. The following production and/or consumption limits shall not be exceeded:

# Aggregate Pit

- A. 9,730 tons per 24-hour period of aggregate crushing and screening production.
- B. 1,500,000 tons of aggregate mined including bank run per rolling 12-month period.
- C. Hours of operation for the bulldozers, front-end loaders, off highway haul trucks and off highway water trucks per rolling 12-month period.
  - 1) 3,000 hours of operation per rolling 12-month period for the bulldozers
  - 2) 9,000 hours of operation per rolling 12-month period for the front end loaders
  - 3) 2,000 hours of operation per rolling 12-month period for the haul trucks and water trucks
- D. Horsepower-Hours (HP-hrs) of operation for the electrical generators per rolling 12-month period.
  - 1) 92,500 HP-hrs of operation per rolling 12-month period for the electrical generators.

Aggregate production shall be determined through the use of weigh scales and recording of the weights.

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production shall be kept on site and shall be kept for all periods when the plant is in operation. The records shall be kept on a daily basis. Supervisor monitoring and maintaining of an operations log shall determine hours of operation.

# **Roads and Fugitive Dust**

- 11. Geneva Rock shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the Mount Jordan site. Company Name shall abide by the most current fugitive dust control plan approved by the Executive Secretary. A copy of the fugitive dust control plan is attached as Appendix B.
- 12. Water sprays or chemical dust suppression sprays shall be installed at the following points to control fugitive emissions:
  - A. All crushers
  - B. All screens
  - C. All conveyor transfer points

The sprays shall operate to the extent necessary to keep the equipment operation within the opacity limitation of 10%.

- 13. Water shall be added if necessary to the mined material (to be bulldozed) such that before the material is moved its moisture content is greater than 4.0% by weight. The moisture content shall be maintained throughout subsequent crushing, screening and conveying circuits. The silt content of the product shall not exceed 15% by weight on a daily average without prior approval in accordance with R307-401, UAC. The moisture and silt content shall be tested if directed by the Executive Secretary using the appropriate ASTM method.
- 14. The storage piles shall be watered to minimize generation of fugitive dusts as dry conditions warrant or as determined necessary by the Executive Secretary. The total area of storage piles shall not exceed 7.5 acres with not more than 1.5 acres of the storage piles being active.
- 15. The open or disturbed area shall not exceed 38 acres.
- 16. The facility shall abide by all applicable requirements of R307- 309 for PM<sub>10</sub> non-attainment areas for Fugitive Emission and Fugitive Dust sources.

#### **Fuels**

17. The sulfur content of any fuel oil or diesel burned shall not exceed 0.05 percent by weight for diesel fuels consumed in all equipment.

The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. The sulfur content shall be tested if directed by the Executive Secretary. Certification of fuels shall be either by Geneva's own testing or test reports from the fuel marketer.

## **Federal Limitations and Requirements**

18. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subparts A, 40 CFR 60.1 to 60.18, and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing), apply to affected equipment located at the Mt Jordan site.

## **Records & Miscellaneous**

- 19. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.
- 20. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
- 21. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.airquality.utah.gov/

The annual emission estimations below include point source, fugitive emissions, fugitive dust, road dust and tail pipe emissions, and do not include grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for the Geneva Rock Mt. Jordan site are currently calculated at the following values:

	<u>Pollutant</u>	Tons/yr
A.	PM <sub>10</sub>	26.98
B.	$SO_2$	
C.	NO <sub>x</sub>	15.53
D.	CO	4.51
E.	VOC	1.77
F.	HAPs	0.26

Approved By:

Richard W. Sprott, Executive Secretary Utah Air Quality Board

# Appendix A

# Geneva Rock – Mount Jordan Equipment List

Whenever this equipment list is modified, the modified version shall replace the existing version, and the modified version shall be attached to the most current AO.

Geneva Rock may alter or substitute portions of the equipment list, at any time, provided Geneva Rock submits these alterations for approval to the Executive Secretary and they are approved in accordance with R307-401, UAC.

Non-Mobile Equipment List Updated: June 19, 2003

Class	No.	Group	Capacity	Description	Make	Serial No	NSPS
i9-	2009	Tank	14000 Gal	FUEL TANK HIGH SULFUR DIESEL			Kb
i9-	2029	Tank	500 Gal	FUEL TANK GAS 500 GALLON W/STAND			na
75-	2001	Crusher		CONE CRUSHER 54"	ELJAY		000
76-	2251	Crusher		CONE CRUSHER 45" STD	ELJAY	22G0690	000
31-	2127	Screen	3 HP	FEEDER	GRP	F480-C.DT	000
75-	2009	Screen		SCREEN PLANT (6X12)	P.E.P.		000
77-	2021	Screen	30 HP	SCREEN (5X16)	ELJAY	34E0191	000
77-	2023	Screen	30 HP	WET SCREEN (5X16) WEST	ELJAY	48266	000
77-	2024	Screen	30 HP	WET SCREEN (5X16) EAST	ELJAY	47381	000
17-	2197	Screen	10 HP	SCREEN (4X12)	ELJAY		000
77-	2258	Screen	15 HP	SCREEN (6X12) W/FEEDER	PEP		000
32-	2235	Conveyor	40 HP	SAND SCREW (54 X 34)	EIW		000
76-	2251A	Conveyor	7.5 HP	CONE CRUSHER-CONVEYOR (30 X 40)			000
77-	2021A	Conveyor		SCREEN-CONVEYOR	ELJAY		000
77-	2258A	Conveyor		SCREEN-CONVEYOR (30 X 12)	PEP		000
77-	2258B	Conveyor	15 HP	SCREEN-CONVEYOR (30 X 46)	PEP		000
79-	2026	Conveyor	7.5 HP	CONVEYOR (30 X 45)	KIMBALL		000
79-	2028	Conveyor	20 HP	CONVEYOR (24X143)	GRP		000
79-	2029	Conveyor	25 HP	CONVEYOR (30X102)	KIMBALL	5074-2	000
79-	2030	Conveyor	20 HP	CONVEYOR (30 X 133)	GRP		000
79-	2032	Conveyor	25 HP	CONVEYOR (30 X 114)	GRP		000
79-	2033	Conveyor	20 HP	CONVEYOR (30X130)	GRP		000
79-	2034	Conveyor	20 HP	CONVEYOR (24 X 393)			000
79-	2048	Conveyor	10 HP	CONVEYOR (30 X 52)	GRP		000
79-	2073	Conveyor	7.5 HP	CONVEYOR (30X40)			000
79-	2074	Conveyor	10 HP	CONVEYOR (30X51)	GRP		000
79-	2123	Conveyor	30 HP	CONVEYOR (30 X 74	IDEAL		000
79-	2124	Conveyor	30 HP	CONVEYOR (30 X 162)	IDEAL		000
79-	2125	Conveyor	30 HP	CONVEYOR (30X166)	IDEAL		000
79-	2126	Conveyor	15 HP	CONVEYOR (36 X 50)	GRP		000
79-	2147	Conveyor	7.5 HP	CONVEYOR (30 X 50)	GRP		000
79-	2188	Conveyor	20 HP	CONVEYOR (30 X 100)	KIMBALL	5074-1	000
79-	2189	Conveyor	20 HP	CONVEYOR (30X100)	KIMBALL	5074-4	000
79-	2192	Conveyor	20 HP	CONVEYOR (30 X 100)	KIMBALL		000
79-	2196	Conveyor	10 HP	CONVEYOR (24 X 50)	PIONEER		000
79-	2214	Conveyor	20 HP	CONVEYOR (30X100)	KIMBALL		000
'9-	2293	Conveyor	30 HP	CONVEYOR (36 X 107)	CARTER		000
79-	2294	Conveyor	30 HP	CONVEYOR (36 X 107)	CARTER		000
79-	2295	Conveyor	30 HP	CONVEYOR (36 X 107)	CARTER		000
30-	2166	Conveyor	50 HP	CONVEYOR (36 X 125) STACKER	KOLBERG	7721-31-36125-94	000
30-	2184	Conveyor	30 HP	CONVEYOR (36 X 100) STACKER	KOLBERG		000
80-	2267	Conveyor	40 HP	CONVEYOR (30 X 148) STACKER	KOLBERG		000

# Appendix B

# Geneva Rock – Mount Jordan FUGITIVE DUST CONTROL PLAN

#### INTRODUCTION

This Fugitive Dust Control Plan (FDCP) describes the procedures implemented by Geneva Rock Products (GRP) to minimize emission from aggregate processing operations. Implementation of an effective FDCP is a condition of the Approval Orders (AO's) issued by the Utah Division of Air Quality (UDAQ).

#### FUGITIVE DUST CONTROL MEASURES

The liberal application of water is the primary fugitive dust control measure. Aggregate materials are wetted to maintain an average 4.0% moisture content during all transfer and processing operations. Personnel visually monitor the operations and implement control measures whenever fugitive dust becomes excessive. Personnel apply liberal quantities of water to sources of fugitive dust whenever a visible plume rises more than four feet (4') above the point of generation. GRP believes this approach will effectively control emissions of particulate matter (PMio) and preclude generation of excessive opacity.

The specific control measures utilized by GRP are as follows:

1. Drilling and Blasting (R307-309-4(1)(g) Drilling, blasting and pushing operations)

Description: Drilling and basting is necessary to loosen the aggregate for removal by bulldozers and/or other heavy equipment

Control Measures: Blasting is prohibited when:

- A. "No-Burn" order in effect for wood burning; or.
- B. Average wind speed exceeds 15.0 miles per hour.

Records: Date of each blasting operation.

2. Mining and Excavation (R307-309-4(l)(i) Earth moving and excavation)

Description: Raw aggregate materials are removed from the sand and gravel quarry using bulldozers, front-end loaders, draglines, scrapers, backhoes, and other heavy equipment. Control Measures: Fugitive dust is controlled by water spray whenever a visible dust plume rises more than four feet (4') above the point of generation.

Records: Hours of bulldozer operation per month and per rolling 12-months.

3. Loader Transfers (R307-309-4(1)(e) Material loading and dumping)

Description: Front-end loaders are used to transfer materials to and from excavations, storage piles, feed hoppers, and trucks.

Control Measures: Loaders will minimize drop distance as small as practical. Whenever water is added at any point in the process all of the downstream processes benefit. Water spray or other dust suppression technology shall be installed and operated whenever a visible dust plume rises more than four feet (4') above the point of generation.

Records: Date, time and location of water added.

## 4. Screening and Crushing (R307-309-4(1)(c) Material processing)

Description: Raw materials are processed through a variety of screens and crushers to produce aggregate of the desired size and type.

Control Measures: Whenever water is added at any point in the process all of the downstream processes benefit. Water spray or other dust suppression technology shall be installed and operated whenever a visible dust plume rises more than four feet (4') above the point of generation. Records: Total aggregate production per month and per rolling 12-months.

# 5. Conveyor Transfers (R307-309-4(1)(b) Material handling and transfer)

Description: Conveyors are used to transfer materials to and from feed hoppers, screens, crushers, storage piles, and delivery trucks. (Note: Conveyors are an effective technique to minimize dust from material handling operations.)

Control Measures: Whenever water is added at any point in the process all of the downstream processes benefit. Water spray or other dust suppression technology shall be installed and operated whenever a visible dust plume rises more than four feet (4') above the point of generation. Records: Date, time and location of water added.

## 6. Storage Piles (R307-309-4(1)(a) Material Storage)

Description: Storage piles are needed to segregate materials of different size and grade. Control Measures: Whenever water is added at any point in the process all of the downstream processes benefit. Water spray or other dust suppression technology shall be installed and operated whenever a visible dust plume rises more than four feel (4') above the point of generation. Records: Date, time and location of water added.

# 7. Disturbed Areas (R307-309-4(1)(j) Exposed surfaces)

Description: A portion of the site will be disturbed ground, including quarries, roads, storage piles, and process areas.

Control Measures: Fugitive dust is controlled by minimizing the disturbed area and by water spray whenever a visible dust plume rises more than four feet (4') above the point of generation. Disturbed areas quickly lose their fugitive dust generating potential when the disturbing activity is stopped.

Records: Date, time and location of water added.

## 8. Unpaved Roads (R307-309-4(1)(d) Road ways and yard areas)

Description: Haul trucks and front-end loaders travel on unpaved roads and work areas. Control Measures: All unpaved roads and other unpaved operational areas that are used by mobile equipments shall be water sprayed and/or chemically treated to control fugitive dust. Control is required at all times (24 hours per day) for the duration of operations. Water application shall be completed whenever a visible dust plume rises more than four feet (4') above the point of generation.

Records: Date, time and location of water added.

# 9. Additional dust control measures are utilized by GRP, including:

- A. Distances traveled on unpaved roads are minimized when practical;
- B. Speed on unpaved roads is limited to 15 miles per hour;
- C. Roads are graded, compacted, and chemically treated when needed;
- D. Conveyors are substituted for trucks and loaders when practical; and
- E. Roads are paved when practical.
- 10. Records: Records of water and chemical treatment shall be kept for all periods when the facility is in operation. The records shall include the following:
  - A. Date:
  - B. Chemical treatment made, dilution ratio, and quantity;
  - C. Number of water applications and quantity; and
  - D. Approximate amount of rainfall, if any.

All records specified in this FDCP shall be made available to the Executive Secretary upon request and shall include a period of two years ending with the date of the request.

# 11. Paved Roads (R307-309-4(l)(d) Road ways and yard areas)

Description: Dust may become air borne when disturbed by tires and by air currents from moving vehicles. (Note: Paving is an effective technique to minimize dust emissions from travel surfaces.) Control Measures: All paved roads shall be swept and/or watered to control fugitive dust. Control is required at all times (24 hours per day) for the duration of operations. Sweeping or watering shall be completed whenever a visible dust plume rises more than four feet (4') above the point of generation. Additional dust control measures are utilized by GRP, including:

- A. Speed on paved roads is limited to 30 miles per hour.
- B. Loaded trucks are covered in accordance with the Utah Tarp Law.
- C. Spills of dust forming debris are cleaned-up promptly.
- D. Records: Date, time, and location of sweeping and water added.

#### 12. FUGITIVE DUST REGULATIONS

The facility shall abide by all applicable requirements of UAC R307-309 for non-attainment area fugitive dust requirements, as follows:

R307-309. Davis, Salt Lake and Utah Counties, Ogden City and Any Nonattainment Area for PM10: Fugitive Emissions and Fugitive Dust.

R307-309-1. Applicability and Definitions.

- (1) Applicability. R307-309 applies to all sources of fugitive dust and fugitive emissions located in Davis, Salt Lake and Utah Counties, Ogden City, and any nonattainment area for PM10, except as specified in (2) below. Any source located in those areas for which limitations for fugitive dust or fugitive emissions are assigned pursuant to R307-401 is subject to R307-309 on May 4, 1999, unless the source has an operating permit issued under R307-415 prior to that date. If the source has an operating permit, the source is subject to R307-309 on the date of permit renewal or permit reopening as specified in R307-415, whichever occurs first.
  - (2) Exemptions.
  - (a) The provisions of R307-309 do not apply to agricultural or horticultural activities.
- (b) Any source which is subject to R307-305-2 through 7 or R307-307 is exempt from all provisions of R307-309 except for R307-309-4.

- (c) Any source regulated by R307-205-5 or R307-205-6 is exempt from all provisions of R307-309 except for R307-309-4.
  - (3) The following additional definitions apply to R307-309:
- "Material" means sand, gravel, soil, minerals or other matter which may create fugitive dust.

"Road" means any public or private road.

# R307-309-2. Fugitive Emissions.

Fugitive emissions from any source shall not exceed 15% opacity.

# R307-309-3. General Requirements for Fugitive Dust.

- (1) Opacity caused by fugitive dust shall not exceed: (a) 10% at the property boundary; and (b) 20% on site unless an approval order issued under R307-401 or a dust control plan specifies a lower level; except when the wind speed exceeds 25 miles per hour and the owner or operator is taking appropriate actions to control fugitive dust. If the source has a dust control plan approved by the Executive Secretary, control measures in the plan are considered appropriate. Wind speed may be measured by a hand-held anemometer or equivalent device.
- (2) Any source with a dust control plan approved by the Executive Secretary prior to March 4, 1999, shall review and revise the plan in accordance with R307-309-4 below. The revised plan shall be submitted to the Executive Secretary no later than May 4, 1999.

## R307-309-4. Fugitive Dust Control Plan.

- (1) Any person owning or operating a new or existing source of fugitive dust, including storage, hauling or handling operations or engaging in clearing or leveling of land one-quarter acre or greater in size, earthmoving, excavation, or movement of trucks or construction equipment over cleared land one-quarter acre or greater in size or access haul roads shall submit a plan to control fugitive dust to the Executive Secretary no later than 30 days after the source becomes subject to the rule. The plan shall address fugitive dust control strategies for the following operations as applicable:
  - (a) Material Storage;
  - (b) Material handling and transfer;
  - (c) Material processing;
  - (d) Road ways and yard areas;
  - (e) Material loading and dumping;
  - (f) Hauling of materials:
  - (g) Drilling, blasting and pushing operations;
  - (h) Clearing and leveling;
  - (i) Earth moving and excavation;
  - (j) Exposed surfaces;
  - (k) Any other source of fugitive dust.
  - (2) Strategies to control fugitive dust may include:
  - (a) Wetting or watering;
  - (b) Chemical stabilization;
  - (c) Enclosing or covering operations;
  - (d) Planting vegetative cover;
  - (e) Providing synthetic cover;
  - (f) Wind breaks;
  - (g) Reducing vehicular traffic;
  - (h) Reducing vehicular speed;

- (i) Cleaning haul trucks before leaving loading area;
- (j) Limiting pushing operations to wet seasons;
- (k) Paving or cleaning road ways;
- (1) Covering loads;
- (m) Conveyor systems;
- (n) Boots on drop points;
- (o) Reducing the height of drop areas;
- (p) Using dust collectors;
- (q) Reducing production;
- (r) Mulching;
- (s) Limiting the number and power of blasts;
- (t) Limiting blasts to non-windy days and wet seasons;
- (u) Hydro drilling;
- (v) Wetting materials before processing;
- (w) Using a cattle guard before entering a paved road;
- (x) Washing haul trucks before leaving the loading site; or
- (y) Terracing.
- (3) Each source shall comply with all provisions of the fugitive dust control plan as approved by the Executive Secretary.

## R307-309-5. Storage, Hauling and Handling of Aggregate Materials.

Any person owning, operating or maintaining a new or existing material storage, handling or hauling operation shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials which may create fugitive dust on a public or private paved road shall clean the road promptly.

## R307-309-6. Construction and Demolition Activities.

Any person engaging in clearing or leveling of land with an area of one-quarter acre or more, earthmoving, excavating, construction, demolition, or moving trucks or construction equipment over cleared land or access haul roads shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. Any such person who deposits materials which may create fugitive dust on a public or private paved road shall clean the road promptly.

#### R307-309-7. Roads.

- (1) Any person responsible for construction or maintenance of any existing road or having right-of-way easement or possessing the right to use the same whose activities result in fugitive dust from the road shall minimize fugitive dust to the maximum extent possible. Any such person who deposits materials which may create fugitive dust on a public or private paved road shall clean the road promptly.
  - (2) Unpaved Roads.
- (a) When unpaved roads have an average daily traffic volume of less than 150 vehicle trips per day, averaged over a consecutive 5-day period, fugitive dust shall be minimized to the maximum extent possible.
  - (b) When unpaved roads have an average daily traffic volume of 150 vehicle trips per day or greater, averaged over a consecutive 5 day period, control techniques shall be used which are equal to or better than 2-inch bituminous surface.

(c) Any person responsible for construction or maintenance of any new or existing unpaved road shall prevent, to the maximum extent possible, the deposit of material from the unpaved road onto any intersecting paved road during construction or maintenance. Any person who deposits materials which may create fugitive dust on a public or private paved road shall clean the road promptly.

KEY: air pollution, dust\*

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